

Truck Mounted Telescopic Crane

LTF 1045-4.1

Max. capacity: 45 t
Max. lifting height: 44 m
Max. radius: 42 m



LIEBHERR

Courtesy of Crane.Market

Truck mounted telescopic crane LTF 1045-4.1

Economical and flexible

With a long telescopic boom and high capacities the compact truck mounted telescopic crane LTF 1045-4.1 from Liebherr on a standard truck chassis is an economical and flexible alternative in the taxi crane class. It drives on public roads with complete equipment and thus is immediately ready for operation on the job site.



- 35 m long telescopic boom
- High capacities with full and part ballast
- Low axle loads, flexible registration possibilities
- Flexible crane control LICCON2 with mobile and multifunctional control and display unit BTT
- Optional available wireless remote control, with which all crane movements outside of the cab can be operated
- Low operating costs in driving mode due to use of standard trucks
- Fuel saving by separate crane engine specifically adapted for crane operations





Extensive storage boxes for equipment and support timber are provided at the intermediate frame and the two front folding beams

Mobility and functionality



Economical truck chassis

The operational costs of the LTF 1045-4.1 are low due to the use of a standard truck chassis. Cost advantages result from the design related reduced fuel consumption and economical tyres and spare parts, because they are produced in large quantities. Optional available are additionally roomy, comfortable truck driver cabs with sleeping cabin. They offer flexibility on jobs and possibilities for relaxing for the driver.

Special self produced Liebherr intermediate frame

The connection to the crane chassis was designed by Liebherr using MSH-profiles from high tensile fine grain steel. Crane drivers appreciate the numerous storage compartments in the area of the intermediate frame and the outrigger beams.



Option: Storage boxes combined for lifting tackle and support timber





The crane cab

- Large field of vision
- Safety glazing
- Tinted screens
- Crane driver seat with lumbar support, multiple adjustable
- Heat and noise insulated interior lining
- Corrosion resistant
- Working flood lights

Comfort and variability

Fast, secure and variable erection

The support, the ballast mounting as well as the installation of additional equipment is designed for speed, safety and comfort. For the safety of the operational staff steps and handholds are provided.



Supporting the crane – fast, comfortable and safe

- BTT Bluetooth Terminal, mobile control and display unit
- Fully automatic leveling by pressing a push button
- Electronic inclination display
- Engine start/stop and speed regulation



The supports

- 4 point support
- Horizontally and vertically fully hydraulically extendable
- Stroke of the support cylinders 750 mm
- Illumination of the support area by 4 integrated flood lights
- Outrigger beams 2-stage, fully hydraulic, low maintenance extension system

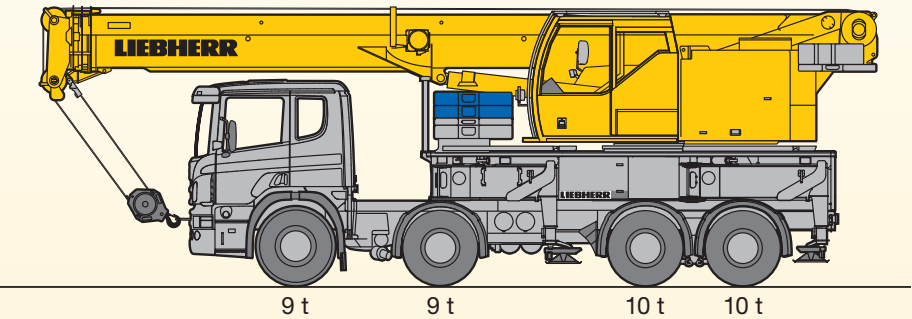


Chassis Scania

EURO 6

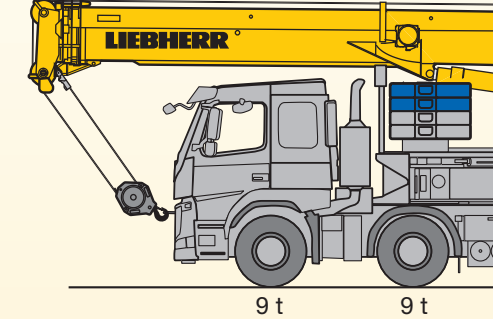
Chassis Volvo

9 t ballast



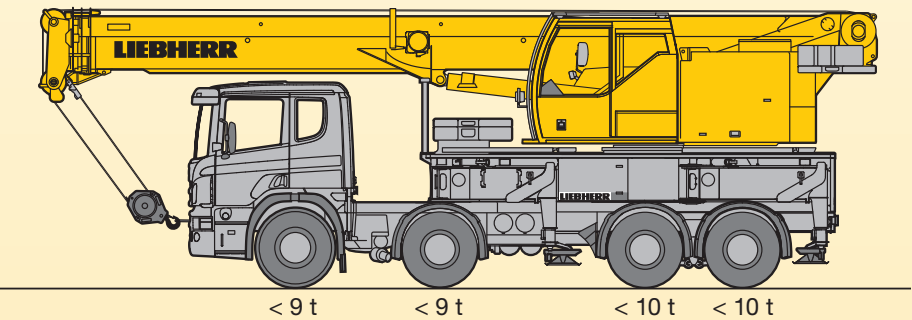
Total weight: 38 t

9 t ballast



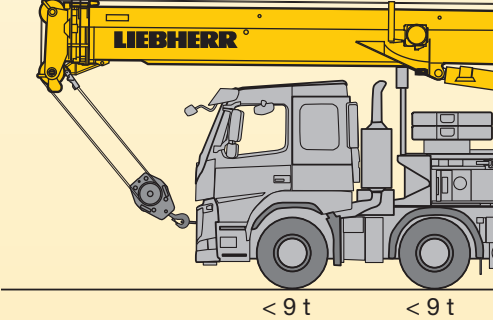
Total weight: 38 t

5 t ballast



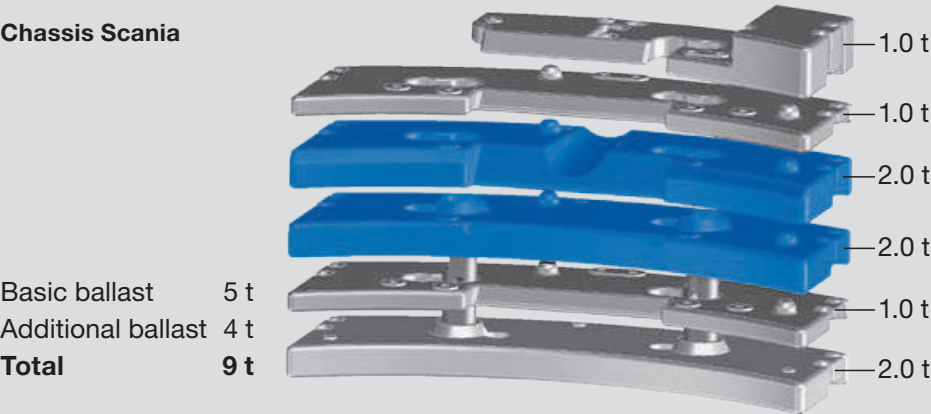
Total weight Scania: 33 t

5 t ballast

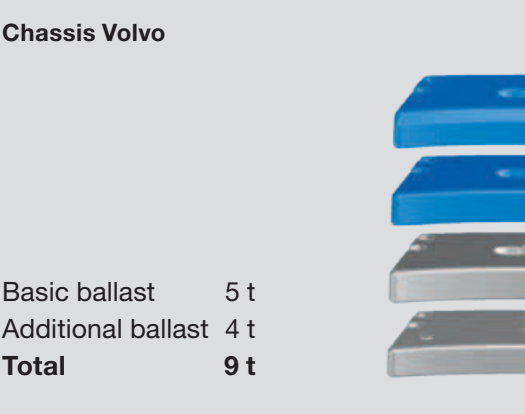


Total weight: 33 t

Chassis Scania



Chassis Volvo

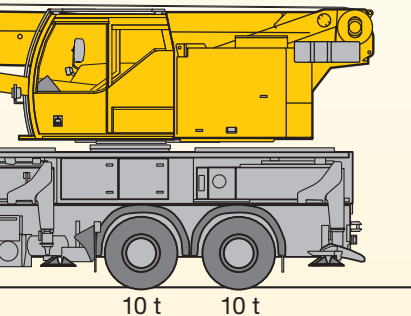


Alleviated registration possibilities

For mobility and flexibility serve the compact dimensions and low axle loads of the truck mounted telescopic cranes. The LTF 1045-4.1 meets for instance the conditions for an unlimited driving permission in Germany.

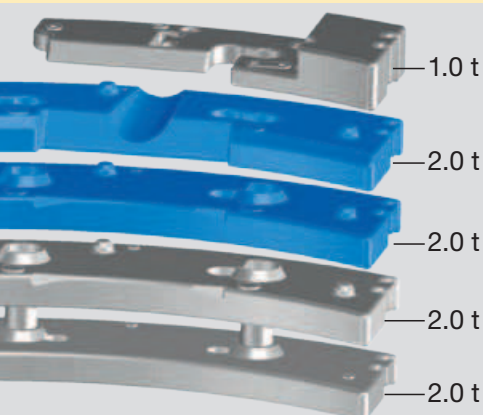
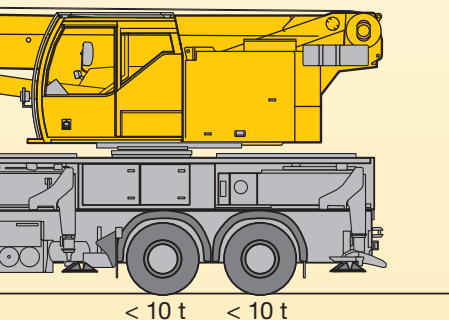
Low axle loads

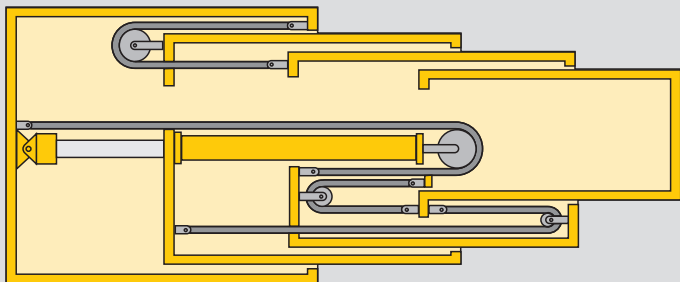
As a taxi crane with a total ballast of 9 t and the swing-away jib the LTF 1045-4.1 has a total weight of 38 t. Thereby the two front axles are loaded with 9 t and the rear axles with 10 t each. By reducing the carried ballast the total weight can be limited to 33 t. If an even lower total weight is requested, the carried ballast can be further reduced.



Ballast mounting - only a matter of minutes

- Multiple number of ballast variations
- Fast ballasting with keyhole technology from the crane cab
- Compact ballast dimensions, only 2.49 m ballast width
- Tail radius only 3 m





Proven hydro-mechanical telescoping system

- Reliable single stage double acting hydraulic cylinder
- Low boom centre of gravity due to 2-fold pulley tackle for the sections 2 and 3
- Telescope section 1 is extended/retracted by the hydraulic cylinder, the section 2 and 3 by the ropes
- High telescopic capacities

High capacities and flexible boom system



Powerful, strong telescopic boom and functional lattice extension

The telescopic boom comprises of the base section and 3 telescopic sections which can be extended comfortably by a hydro-mechanic extension system to any requested length.

- 35 m long telescopic boom
- 9.5 m long single swing-away jib, under 0°, 20°, 40° or 60° mountable
- The swing-away jib is identical to the jib of the LTM 1040-2.1; by this modular design the swing-away jib can be used on both crane types

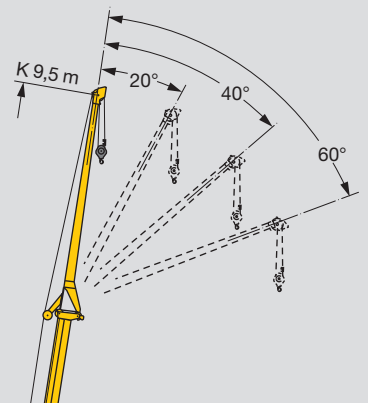
High capacities with full ballast as well as with part ballast offer a wide operational field

- High side stability due to the oval boom profile
- Telescoping under load
- Capacity 45 t at 2.5 m radius
- Maximum hook height 44 m
- Maximum radius 42 m

Boom nose, sidewise foldable



9.5 m long swing-away jib adjustable up to 60°





The hoist gear

- Liebherr hoist winch with integrated planetary gear and spring loaded multiple disk brake
- Rope pull 34 kN on the outer layer
- Max. rope speed 120 m/min
- 2. hoist gear optional



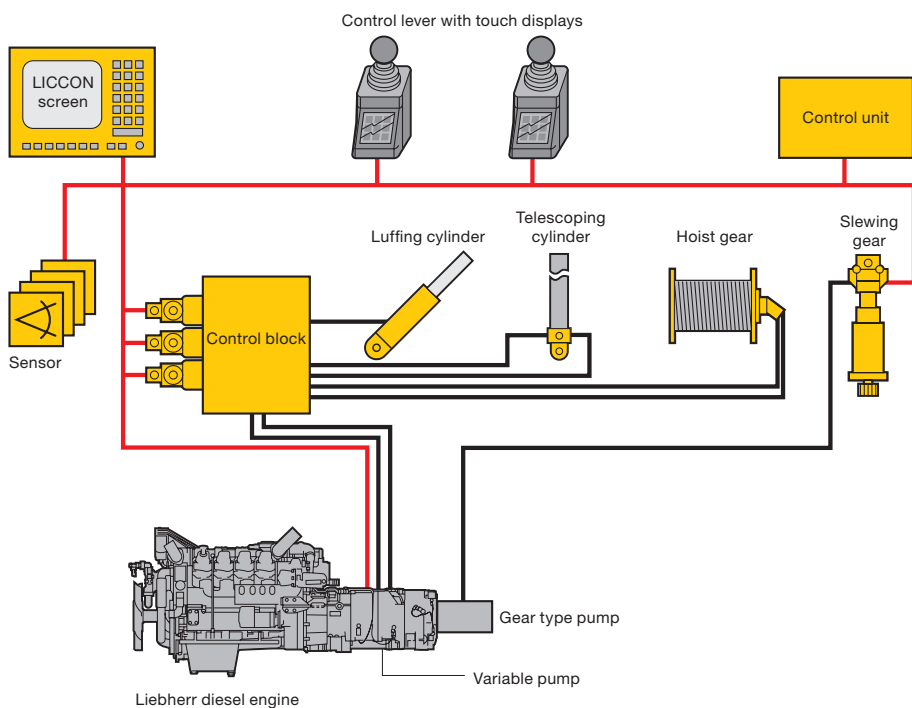
Powerful crane drive



With proven components

The drive components for the crane drive are designed for high efficiency and provide for a sensible and precise handling of the loads. They are specially adapted for the crane operation and proven in severe long-time tests.

- Crane engine: 4-cylinder Liebherr turbo charged diesel engine, 129 kW/ 175 HP, max. torque of 815 Nm, optimized fuel consumption by electronic engine management
- Diesel-hydraulic crane drive, open oil circuits with electric "Load Sensing"-control, 4 working motions simultaneously possible
- Electric/electronic SPS-crane control via the LICCON computer system
- Comfort armrest control with 2 self centering, 4-fold joy sticks, stepless control of all crane motions with winch and slewing gear sensors, electronic pilot control
- Slewing gear switchable for: open or hydraulically fixed, so the motion can optimally be adjusted for the various operation conditions, e. g. sensible erection operation or fast working cycles



The slewing gear

- Liebherr planetary gearbox, spring loaded multiple disk brake
- Switchable as standard: open or hydraulically fixed
- Slewing speed of 0 – 2.7 rpm stepless adjustable



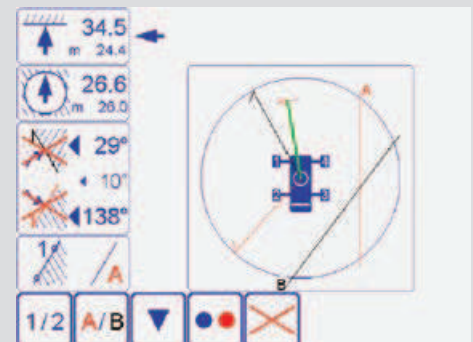
The central greasing

- Standard central greasing device for slewing ring, boom bearing, luffing cylinder and winch bearing
- Consistent supply of grease
- Filling amount in transparent container visible at all times



The LICCON test system

- Fast detection of faults at the screen without metering instruments
- Display of error codes and error description
- Comfortable dialogue functions for monitoring of all in and out ports
- Display of the functions and allocation of the sensors and the actors



Intelligent crane control



For functional and safe crane operation, the LICCON computer system

The soft- and hardware of the mobile crane control is developed by Liebherr in-house. The centre is the LICCON computer system (Liebherr Computed Control).

- Integrated LMB load moment limiter
- Key components are in-house manufactured by Liebherr
- Guaranteed spare parts availability
- Worldwide proven under the most different climate conditions
- Operator friendly

The second control generation LICCON2 is the result of a continuous development by the Liebherr specialists and enables the adaption to the constantly increasing demands of the markets due to its modern and future oriented control.

The data bus technology

Liebherr mobile cranes are completely interlaced by the data bus system. All important electric and electronic components are equipped with own micro processors and communicate with each other by only limited data cables. For the special demands of the mobile crane Liebherr has developed own data bus systems (LSB – Liebherr-System-Bus). The data bus technology improves the reliability, the comfort and the safety for road driving and crane operation:

- Higher reliability due to remarkable lesser electric cables and contacts
- Continuous self testing of the „intelligent sensors“
- Comprehensive diagnosis possibilities, fast fault finding

The LICCON working range limiting system

- Relieve for the crane driver by automatically monitoring of working area borders like bridges, roofs etc.
- Simple programming
- Four different limitation functions:
 - Sheave head height limitation
 - Radius limitation
 - Slewing angle limitation
 - Edge limitation



The LICCON work planner

- Computer program for planning, simulation and documentation of crane jobs at the personal computer
- Display of all load charts related to a crane
- Automatic search for the applicable crane by entering the load case parameters load, radius and lifting height
- Simulation of crane jobs with drawing function and support force display

LICCON2 – safe and comfortable



Attaching and detaching of the hook block

The BTT Bluetooth Terminal offers the crane driver the possibility to attach or detach the hook block at the front of the vehicle within sight, as the hoist winch and the luffing cylinder of the telescopic boom are remote controlled.



Wireless remote control

Wireless remote control (Option)

All crane motions can be controlled outside of the cab.

- Higher efficiency
- Free view and closeness to the load
- Prevention of communication errors between the crane driver and the job site personnel

Crane supporting

With the BTT the crane is supported comfortably and safely. Engine start/stop and speed regulation, electronic inclination display and automatic support leveling are provided as standard. Optionally at the BTT the support forces can be displayed.



Colour monitor

The readability of the data on the monitor of the LICCON2 control in the superstructure cab is improved by the colour display. Warnings and the crane utilization are easier detectable.



Touch displays

Below the joysticks, integrated in the armrests, touch displays are installed by which the various operation functions can be selected. Beside others these are the supporting of the crane and the adjustment of the working flood light as well as the heating and climate regulation.